

# White-lined sphinx moth

*Hyles lineata* • By Andrew Coghill

During a backpacking trip on Yellowstone National Park's Two Ocean Plateau, my wife and I stopped at a creek to filter water and spotted a hummingbird feeding on wildflowers. But wait—the “hummingbird” was flying abnormally slow and its bill was too long and bendy, like a miniature bamboo fly rod.

“It’s a hummingbird moth,” said my wife.

She might as well have called it the Flat-head Lake Monster. I’d never heard of such a thing. Now I’ll never forget it.

## TAXONOMY

Moths and butterflies comprise the order Lepidoptera, or insects with scaly wings. Often maligned as pests, moths provide the same ecological functions and benefits as butterflies, says Marian L. Kirst, with the Montana Moth Project.

Kirst says moths pollinate a wide variety of native plants, helping maintain genetic diversity. As decomposers, they break down dead organic matter and return nutrients to the soil. They also provide food for other insects and omnivorous vertebrates including birds, bats, frogs, rodents, and even bears. Many bird species rear their young on fatty, protein-rich moth caterpillars.

The white-lined sphinx belongs to the Sphingidae family. Members are commonly called “sphinx moths” (for the resting pose of the caterpillar), “hawk moths” (for their swift flight), and even “hummingbird moths” (for their ability to hover while feeding). The caterpillars are sometimes called “hornworms” (for the soft spike on their posterior end).

## IDENTIFICATION

The white-lined sphinx flies swiftly, beating its 1.5-inch wings around 40 times per sec-

ond. The body is brownish tan and the forewings are striped with white lines and a prominent diagonal tan band. Partially pink hindwings are a reminder that moths can be colorful. Characteristic of all moths, its antennae are feathery, unlike slender butterfly antennae, which are tipped by a club.

White-lined sphinx caterpillars are yellow, green, or black and marked by lines or dotted lines of the same colors.

## RANGE AND HABITAT

The white-lined sphinx is one of the New World’s most widespread and abundant sphinx moths, ranging throughout Central America north to the contiguous United States and into southern Canada. It prefers open habitats.

## LIFE CYCLE

Adult female white-lined sphinx moths lay eggs on various host plants including willow weed, four o’clock, apple, evening primrose, elm, grape, tomato, purslane, and fuchsia. Once hatched, the ravenous caterpillars shed their skin five times until, at full size, they dig a shallow depression in the soil where they pupate. Cued by temperature and moisture levels, the pupae later emerge as adults. A complete life cycle can occur within the spring and summer or require considerably more time if pupae overwinter in the soil.

In Montana, white-lined sphinx moths

likely have one or two broods per year, depending on regional conditions and climate, Kirst says. She adds that adult specimens have been collected in Montana as early as April and as late as October.

## BEHAVIOR

Adult white-lined sphinx moths are largely crepuscular—active at dawn and dusk. In low light, keen eyesight and a strong sense of smell help adults feed on white and other light-colored flowers. Able to cover many kilometers in flight and travel farther than many other pollinators, the white-lined sphinx moth’s broad range increases genetic diversity in the plants it pollinates.

## FEEDING

White-lined sphinx moth caterpillars feed on many species of the host plants mentioned above. Adult moths feed on flat flowers or unfurl their long, tongue-like proboscis to find nectar in tubular flowers. “In Montana around Billings and in the high deserts of the West and Great Plains, primroses are hugely important to these moths, and you will often see large numbers at dusk and dawn around these flowers,” Kirst says. 🦋



### SCIENTIFIC NAME

*Hyles* is the name of a centaur of Greek mythology. *Lineata* is a Latin word meaning “lined,” referencing the white lines on the forewings of the adult moth.